

Name _____

Module 4 Review

Section 4:1:1 Write rules for sequences.

Write a rule for the sequences below. Your rule should be written as an algebraic expression. Find the 50th term of the sequence. (3 points each)

1) Expression:

Term #	1	2	3	4	5	...	50
Sequence	8	14	20	26	32	...	?

2) Expression:

Term #	1	2	3	4	5	...	50
Sequence	4	10	16	22	28	...	?

3) Expression:

Term #	1	2	3	4	5	...	50
Sequence	13	16	19	22	25	...	?

Section 4:1:2 Apply the triangle inequality rule.

Tell whether it is possible to construct a triangle with the given side lengths. EXPLAIN your answer. (2 points)

4) 6 in., 8 in., 1 in.

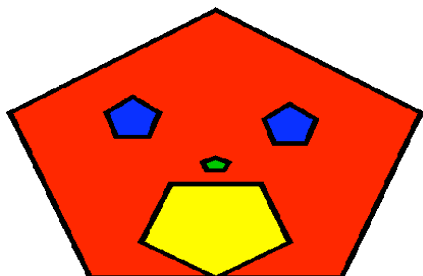
5) 4 cm, 1.5 cm, 2cm

6) 5 ft., 3 ft., 7 ft.

Section 4:2:1 Rotational Symmetry

Tell whether each figure has rotational symmetry. If the figure has rotational symmetry, give the minimum rotational symmetry and tell what other rotational symmetry it has. (4 points each).

7)



Minimum Rotation:

Other Symmetries:

8)



Minimum Rotation:

Other Symmetries:

Section 4:2:2 Recognize rational and irrational numbers.

Tell whether each number is rational or irrational. EXPLAIN your answer. (2 points each)

9) $\sqrt{33}$

10) $7\frac{3}{4}$

11) $\sqrt{81}$

12) 0.12

13) 0.212212221....

14) $0.4\bar{3}$

15) π

16) $\frac{22}{7}$

Section 4:3:1 Fractions

Add, subtract, multiply or divide. *You MAY NOT use a calculator for the Fraction Problems. You must show all steps for these problems!* ALL ANSWERS MUST BE IN SIMPLEST FORM!!! (2 points each)

$$\begin{array}{r} 17) \quad 11\frac{1}{3} \\ + 8\frac{2}{5} \\ \hline \end{array}$$

$$\begin{array}{r} 18) \quad 14\frac{2}{3} \\ - 6\frac{1}{4} \\ \hline \end{array}$$

$$19) \quad \frac{3}{4} \cdot 1\frac{1}{9}$$

$$20) \quad 2\frac{1}{3} \div 3\frac{1}{9}$$

$$\begin{array}{r} 21) \quad 12\frac{5}{8} \\ + 9\frac{2}{3} \\ \hline \end{array}$$

$$\begin{array}{r} 22) \quad 28\frac{1}{8} \\ - 16\frac{7}{10} \\ \hline \end{array}$$

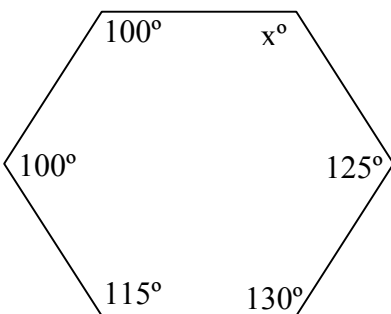
$$23) \quad 3\frac{4}{7} \cdot 3\frac{1}{3}$$

$$24) \quad 3\frac{3}{4} \div 2\frac{3}{16}$$

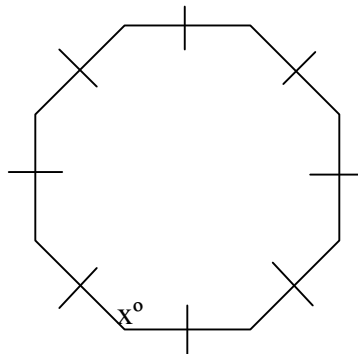
Section 4:4:2 Find the sum of the measure of the interior angles of a polygon.

Find the missing angle. (3 points each)

25)



26)



Section 4:5:1 Identify different types of triangles by looking at their side lengths.

Tell whether a triangle with the given side lengths is acute, obtuse, or right. (2 points each)

27) 5 in., 4 in., 8 in.

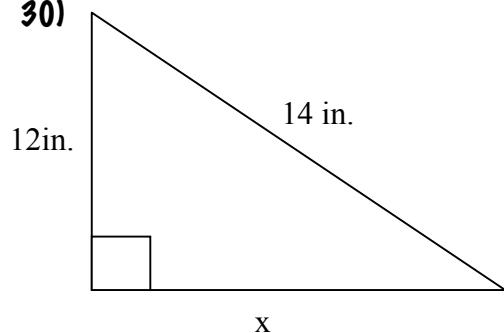
28) 12cm, 13cm, 5cm

29) 6mm, 12mm, 8mm

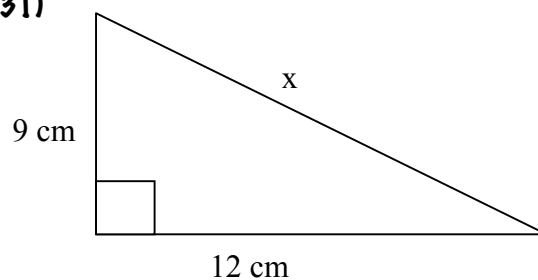
Section 4:5:2 Using the Pythagorean Theorem

For each right triangle, find the unknown side length. Round answers to the nearest tenth. (3 points)

30)



31)



32) Edgar wants to plant a rectangular garden in his backyard. If he uses the measurements shown in the diagram, will his garden be rectangular? Explain why or why not.

